

MEMORY INITIALIZATION AND TEST METHODS AND APPARATUS

ABSTRACT

5 A memory system includes multiple memory modules, which communicate
with a memory controller over one or more channels. When a memory module
receives an initialization command from a processor or the memory controller, the
memory module performs an initialization procedure of the memory locations
associated with the memory module. In an embodiment, at least a portion of the
10 initialization procedure is performed in parallel with the other memory modules
performing initialization procedures. Each memory module may include a buffer
module, which receives the initialization command, and generates and sends data
packets with the initialization data to the memory locations. A memory module also
can receive a test command from the processor or memory controller, which causes
15 the memory module to read data from the memory locations, compare that data with
expected data, and keep track of any errors that may occur.

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